

Attorney Docket No: IDF 1417 (4000-01100)

Patent

REMARKS/ARGUMENTS***Status of Claims***

Claims 1-19 are currently pending in this application. Claims 1, 3 and 19 have been amended to provide the proper antecedent.

35 USC §112 Rejection

Claim 15 has been amended to provide proper antecedent basis.

35 USC §103 Rejections

Claims 1-19 stand rejected under 35 USC §103 as obvious over U.S. Pat. No. 6,621,505 (*Beauchamp*) in view of various secondary references. Applicants respectfully traverse this rejection and submit that *Beauchamp* and the claimed invention are fundamentally different. As explained in detail below, *Beauchamp* employs "universal client" architecture in contrast to the middleware architecture disclosed by Applicants.

Beauchamp is directed to making computing systems easier to use by presenting a limited number of standardized screen displays to a user interface regardless of the underlying application being used -- in other words, providing a "universal client" in a client/server computing system. *Beauchamp* repeatedly emphasizes the use of a standardized user interface in the universal client architecture (emphasis added):

Computer processes for carrying out almost any process may be defined as a series of steps using a plurality of standardized user-interface screens. These standardized interface screens may be linked together in predetermined order to implement on a client computer activities for which the standardized screens are appropriate to accomplish a pre-defined process. Any number of computer processes may be developed and deployed using the standard interfaces.

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(Abstract)

According to the invention, computer processes for carrying out any of a predetermined class of activities, for example business processes, are defined as a series of steps using a plurality of predefined, standardized user-interface screens. ... Any number of computer processes can, therefore, be easily developed and deployed using interfaces familiar to a user. ... Computer processes specific to a particular activity may be easily developed, deployed and modified using these predefined, standardized screens or user interfaces.

(Summary, col. 4, lines 23-39)

Beauchamp teaches use of standardized screens selected from the following limited number of screen types: a target screen, a list screen, a tree screen, a spreadsheet screen, a document screen, a browser screen, a report screen, a calendar screen, and a launch pad screen. (See e.g., col. 6, lines 16-44) *Beauchamp* uses this limited number of screens to display information to a user from any number of underlying applications. In other words, regardless of the type of underlying application, for example an accounting application, inventory application, mathematical application, etc., a user can expect to see the same limited number and type of display screens, which improves computing efficiency. As explained in *Beauchamp* at col. 9, lines 8-24 (emphasis added):

The universal client may provide a single business process interface for ERP systems, database applications, best-of-breed solutions, desktop applications, legacy systems, and even existing enterprise application integration solutions. The universal client serves as a common user interface for all of these disparate systems and liberates the user from having to deal with multiple

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complex interfaces and confusing process flows. The standardized screens and navigational framework of the universal client allows users to experience the same look and feel throughout all of their business processes, regardless of which applications the process steps may involve. The universal client provides a process framework that essentially "holds the user's hand" as he carries out his business process. The universal client also logically separates the backend systems from the user interface, so that the impact on end users is minimized should a company need to make changes or additions to the underlying systems.

By limiting the number of screens that a user sees, the user requires less training and may more efficiently use the underlying applications. In sum, *Beauchamp* is attempting to improve computing efficiency via a "universal client" architecture.

Applicants do not use a universal client architecture as disclosed by *Beauchamp*. In contrast, Applicants disclose a middleware architecture. As shown by Figure 1 and page 1, line 20 – page 2, line 5, Applicants disclose a middleware framework 125 and method for managing communication flow between a user interface 100 and a computer application 120. More specifically, the framework abstracts the communication functions from the business process functions. In other words, the framework encapsulates the process for communication of information to and from a user interface separate and apart from the underlying business process (i.e., task and associated steps) being carried out by an application, thus creating a set of uniform application programming interfaces (APIs) such that the presentation functions can be reused to link a variety of different applications and/or tasks with a variety of different user interfaces. Applicants do not attempt to limit the number or type of screens shown to the user. In fact, Applicants facilitate the use of a variety of different types of user interfaces.

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As shown from the discussion above, a fundamental architectural difference exists between *Beauchamp*'s universal client and Applicants' middleware framework and method:

Universal client -- improve computing efficiency by employing standardized screens and a standardized navigational framework for a user (e.g., client) to access and use a variety of disparate, backend applications (e.g., server).

Middleware framework and method -- improve computing efficiency by managing communication flow between a user interface (e.g., client) and a computer application (e.g., server).

In short, *Beauchamp* is directed to a front-end computing solution whereas Applicants disclose a middleware computing solution. These are completely different approaches to solving different computing issues, and therefore one is not obvious in view of the other.

With respect to independent claims 1 and 19, Applicants respectfully submit that *Beauchamp* in combination with *Elder* (U.S. Pat. No. 5,535,389) does not establish a *prima facie* case of obviousness. According to MPEP § 2142, three basic criteria must be met to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

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Applicants' middleware architecture is recited in the various elements of independent claims 1 and 19, and when considered as a whole, is not disclosed by *Beauchamp* alone or in combination with other references. As acknowledged by the Examiner, an important element is missing from *Beauchamp* -- instantiating a task object modeling the task -- which is central to the formation and operation of the recited framework and method.

Applicants respectfully submit that a middleware framework and a universal client/front-end framework are so fundamentally different that there is no suggestion or motivation to modify *Beauchamp* as suggested by the Examiner to add a middleware component from *Elder*. One skilled in the art could not reasonably be expected to start with a front-end architecture and modify such to achieve the middleware architecture disclosed and claimed by Applicants. The Examiner provides no suggestion or motivation as to why one skilled in the art would pick and choose select elements from *Beauchamp* and drastically alter the fundamental front-end architecture in order to attempt to produce a middleware architecture. Furthermore, one would not have a reasonable expectation of success upon doing so, as such would impermissibly destroy the fundamental functionality and purpose of *Beauchamp* -- namely the use of standardized user-interface screens. According to MPEP § 2143.01, "the proposed modification cannot render the prior art unsatisfactory for its intended purpose." As noted previously, Applicants' disclosed and claimed middleware architecture facilitates the use of a variety of different types of user interfaces, and therefore any modification of *Beauchamp* to produce Applicants' middleware architecture would render *Beauchamp* unsatisfactory for its intended purpose of providing the same "look and feel" in order to "hold the user's hand".

For the foregoing reasons, Applicants respectfully submit that independent claims 1 and 19, and likewise dependent claims 2-18, are not obvious in view of the art of record.

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Applicants desire to substantively advance prosecution of the application and believe that the claimed invention is clearly distinguishable over the *Beauchamp* reference alone and in combination. Therefore, in the event that the Examiner requires further clarification, Applicants respectfully request a telephonic interview to discuss the contents of the prior art of record and the pending claims. Applicants likewise request the courtesy of a telephone interview prior to issuance of the next office action in the event that the Examiner elects to maintain the rejection over *Beauchamp* as the primary reference in combination with other references.

*Attorney Docket No: IDF 1417 (4000-01100)**Patent***CONCLUSION**

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.


Applicants respectfully submit that the present application as amended is in condition for allowance. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

Respectfully submitted,
CONLEY ROSE, P.C.

Date: _____

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